

WHAT IS CLAIMED IS:

1. A motion image decoding apparatus for decoding compressed image data obtained through timebase predictive coding effected to compress a motion image, comprising:
 - an image reproduction portion receiving said compressed image data to generate reproduced image data;
 - an orthogonal transform and compression portion receiving an output from said image reproduction portion to effect orthogonal transform for each predetermined data transform block for data compression, said orthogonal transform and compression portion switching for each said predetermined data transform block a rounding system applied after said orthogonal transform; and
 - a storage receiving an output from said orthogonal transform and compression portion for storing therein reference image data for said predictive coding.
2. The apparatus according to claim 1, wherein said orthogonal transform and compression portion effects Hadamard transform as said orthogonal transform.
3. The apparatus according to claim 1, wherein said orthogonal transform and compression portion switches for each said predetermined data transform block a level of a threshold value for a rounding operation effected after said orthogonal transform.
4. The apparatus according to claim 3, wherein said orthogonal transform and compression portion effects Hadamard transform as said orthogonal transform.
5. The apparatus according to claim 1, wherein:
 - said compressed image data includes a luminance signal and a color difference signal; and

for said luminance signal said orthogonal transform and
5 compression portion switches for each said predetermined data transform
block said rounding system applied after said orthogonal transform, and for
said color difference signal for a DC component said orthogonal transform
and compression portion switches for each said predetermined data
transform block said rounding system applied after said orthogonal
10 transform and for an AC component effects truncation for any said
predetermined data transform block.

6. The apparatus according to claim 5, wherein said orthogonal
compression and transform portion effects Hadamard transform as said
orthogonal transform.

7. A method of decoding a motion image, comprising the steps of:
generating first reproduced image data based on source image data
reproduced from a signal of compressed image data obtained through
timebase predictive coding in compression of a motion image, or generating
5 said first reproduced image data based on the reproduced source image data
and reference image data;

switching a rounding system after orthogonal transform for each
predetermined data transform block of said first reproduced image data,
effecting orthogonal transform coding, and generating second reproduced
10 image data having an amount of data smaller bitwise than said first
reproduced image data;

storing to a reference image memory said second reproduced image
data required to generate said reference image data; and

generating from said second reproduced image data stored in said
15 reference image memory said reference image data corresponding to said
first reproduced image data.

8. The method according to claim 7, wherein in the step of
switching, Hadamard transform is effected as said orthogonal transform.

9. The method according to claim 7, wherein in the step of switching, for each said predetermined data transform block after said orthogonal transform said rounding has a threshold value switched in level.

10. The method according to claim 9, wherein in the step of switching, Hadamard transform is effected as said orthogonal transform.